

REMARKS

Claims 2-17, 19-29, and 31-47 are in the case.

The applicant has studied the Office Action dated October 17, 2003 and has made the changes believed appropriate to place the application in condition for allowance.

Reconsideration and reexamination are respectfully requested.

Applicant acknowledges with thanks the Examiner's indication of allowability for claims 19-29 and 38-47, and the further indication of allowability of claims 2-15, 31, and 33-35 if rewritten to satisfy the objection of being dependent upon a rejected base claim. Applicant has adopted the suggested revisions, which are incorporated in the amended claim set presented *supra*.

Claims 1 and 16-18 have been rejected under 35 USC 103(a) as being unpatentable over Corbani (US 3,878,085, hereafter "the '085 reference") in view of Haag et al (US 6,337,001, hereafter "the '001 reference"). Claims 30, 32, 36, and 37 have been rejected under 35 USC 103(a) as being unpatentable over the '085 reference in view of the '001 reference as applied to claims 1 and 16-18, and further in view of Hurwitt et al (US 5,080,772, hereafter "the '772 reference"). Although applicant disagrees with the Examiner, in order to expedite the present application, Claims 1, 18 and 30 have been cancelled without prejudice. Claims 16-17 have been amended to depend from allowable claim 2. Claims 32, 36 and 37 have been amended to depend, directly or indirectly, from allowable claim 31. Applicant expressly reserves the right to pursue the subject matter of the original claims in a continuation application. It is respectfully submitted that claims 16, 17, 32, 36 and 37 are in condition for allowance.

Claims 16 and 42 have been rejected under 35 USC 112 as being indefinite. (It is

believed that the Examiner intended to refer to claim 44 rather than claim 42.) This rejection is respectfully traversed.

It is the Examiner's position that it is unclear why the cathode should be biased to ground when the cathode is typically biased negatively in order to cause sputtering. However, it is disclosed in the present application that the cathode can be biased to ground potential:

"A relatively large potential difference may be applied between the cathode 104 and the anode 106 to cause electrons to be emitted from the cathode 104 to generate a plasma in the interior 110 of the hollow torus cathode 104. In the illustrated embodiment, a source 116 applies a positive potential to the anode 106 and the cathode 104 is grounded. It is appreciated that a variety of potential differences may be applied between the anode and cathode.

However, in some applications, grounding the cathode 104 can simplify the chamber design since many chamber parts including the chamber walls 118 are typically grounded as well. In such applications, electrical isolation between the chamber walls and the cathode 104 can be reduced or eliminated." Present specification, paragraph 16.

It is therefore respectfully submitted that the rejection of claims 16 and 42 should be withdrawn.

In the statement of reasons for allowance the Examiner provided various reasons for allowance. Applicant notes that the claims are directed to various combinations of features. It is respectfully submitted that the patentability of each of the allowed and allowable claims resides in the combination of features recited in that claim in addition to any features noted by the Examiner.

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In view of all of the above, it is respectfully submitted that the present application is now in condition for allowance. Reconsideration and reexamination are respectfully requested and allowance at an early date is earnestly solicited.

Respectfully submitted,



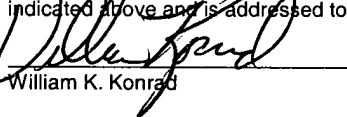
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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail on the date indicated above and is addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

  
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1/15/04  
(Date)